DOCUMENT RESUME

ED 372 896 RC 019 727

AUTHOR	Tharp, Roland G.; Yamauchi, Lois A.
TITLE	Effective Instructional Conversation in Native American Classrooms. Educational Practice Report: 10.
INSTITUTION	National Center for Research on Cultural Diversity and Second Language Learning, Santa Cruz, CA.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE	94
CONTRACT	R117G10022
NOTE	30p.
PUB TYPE	Information Analyses (070)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Alaska Natives; *American Indian Education; American Indians; *Classroom Communication; *Classroom Environment; Cognitive Style; *Cultural Influences; Elementary Secondary Education; Peer Relationship; *Sociolinguistics; *Teacher Student Relationship
IDENTIFIERS	Communication Styles; Contextualization; Culturally Responsive Education; *Instructional Conversation; Native Americans

ABSTRACT

Instructional conversation (IC) is a dialogue between teacher and learner in which prior knowledge and experiences are woven together with new material to build higher understanding. IC contrasts with the highly routinized and teacher-dominated "recitation script" of traditional Western schooling. IC varies in form in different cultures, as do other discourse forms. Analysis of research on the formal and informal learning of Native Americans (including Native Hawaiians) indicates that successful Native American ICs are influenced by at least four basic psychocultural factors: (1) sociolinguistics (teacher and student expectations about conversational "wait time," participation structure, tempo, loudness, and nonverbal behavior); (2) cognition (Native American emphasis on the visual/holistic approach); (3) student motivation (enhanced by the use of culturally relevant curriculum materials and by teacher respect for student autonomy); and (4) social organization (Native American emphasis on small peer-oriented work groups). The evidence suggests that the nature of classroom activity settings influences the participation and engagement of American Indian and Alaska Native students in these activities. "Ideal" Native American activity settings embed ICs in the social context of small student-directed units engaged in joint productive activity that contextualizes formal knowledge in the immediate experience and concerns of the learners. This report contains 74 references. (SV)

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EDUCATIONAL PRACTICE REPORT 10

ED 372 896

EFFECTIVE INSTRUCTIONAL CONVERSATION IN NATIVE AMERICAN CLASSROOMS

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U.S. DEPARTMENT OF EDUCATION
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Effective Instructional Conversation in Native American Classrooms

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1994

This report was prepared with funding from the Office of Educational Research and Improvement (OERI) of the U.S. Department of Education, under Cooperative Agreement No. R117G10022. The findings and opinions expressed here are those of the authors and do not necessarily reflect the positions or policies of OERI.

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Effective Instructional Conversation in Native American Classrooms

Overview

Instructional conversation (IC) is a dialog between teacher and learner in which prior knowledge and experiences are woven together with new material to build higher understanding. IC contrasts with the "recitation script" of traditional western schooling, which is highly routinized and dominated by the teacher. IC varies in form in different cultures, as do other discourse forms. Analysis of the research on the formal and informal learning of American Indians lends insight into possible ways in which instructional conversations in classrooms with these children can be modified to promote learning. Effective instructional conversations for Native Americans are influenced by four basic psychocultural factors identified by Tharp (1989): a) sociolinguistics; b) motivation; c) cognition; and d) social organization. These factors are implicated in activity settings that are more likely to produce effective ICs in Native American classrooms. "Ideal" activity settings—those most likely to produce and maintain ICs for Native American students—are proposed and illustrated.

American Indians and Contemporary Education

Native American Indians make up about 1% of the United States total school population (Indian Nations At Risk Task Force, 1992). They represent 280 different tribal groups (Butterfield, 1963; Stuck in the horizon, 1989). Tribes vary on a number of linguistic, cultural, social, political, and economic dimensions. Considering such diversity, Brassard and Szaraniec (1983) caution against overgeneralizing across groups. However, these authors also point out that there are notable consistencies among Native peoples. Most live on or near reservations (50-60%), and approximately 30% live in large urban communities (Antell, 1980).[1] Eighty-five to ninety percent are educated in public schools, with the balance in schools operated privately by tribes under contract or by the Bureau of Indian Affairs (Indian Nations At Risk Task Force, 1992).

As a group, American Indians are not succeeding in these schools. Indian students have the highest dropout rates by 10th grade of any U.S. ethnic group. Further, 50% of American Indians living on reservations have an elementary education or less. Only 3.5% of male American Indians and 2.5% of the females attend college for four or more years (Antell, 1980).

American Indians who do stay in school have a greater likelihood than students of other ethnic groups to be labeled learning disabled or learning handicapped: 11% of Indian high school students are in special education programs and only 53% of all Indian students were considered not handicapped. This can be compared to the 9% of African Americans and 7% of Hispanics who are enrolled in special education programs, and the 66% of them classified as not handicapped (Stuck in the horizon, 1989).

Achievement test scores also reflect scholastic problems. Test scores from the Arizona Public Schools in 1987-1989 indicate that American Indians consistently score in the 20th and 30th percentile ranges in reading and math and in the 30th and 40th percentiles in language (Bishop, 1988). Although there is evidence that in nonverbal domains of intelligence tests, American Indians perform at least as well as European Americans, this equivalent intelligence is not employed in standard pedagogy and, consequently, not in school achievement (Brassard & Szaraniec, 1983; Tharp, 1989).

Very recently, Indian educational leaders themselves have called for wide-ranging reforms in educational policy and practices, including an incorporation into schooling of Indian community language, knowledge, values, and teaching styles (e.g., Cahape & Howley, 1992; Indian Nations At Risk Task Force, 1992). How can these goals be reached? Although many changes are needed, the central prescription for bringing the world of children into the educational process is to place teaching squarely in dialogic processes (Rogoff, 1991; Tharp & Gallimore, 1988; Wertsch, 1991). It is in the spirit of these intended reforms that we examine the conditions under

which effective instructional conversations are most likely to occur in American Indian classrooms.

The Instructional Conversation

The instructional conversation (IC) is a concept that encompasses certain macro- and micro-processes in effective education. It is defined in part by contrast to the "recitation script," an instructional process that has characterized North American schools for the last century (Tharp & Gallimore, 1988). The recitation script consists mainly of teachers asking questions in hope of eliciting certain predictable and "correct" answers from their students (Goldenberg & Gallimore, 1991; Tharp & Gallimore, 1988). This kind of instruction allows for little assistance in elaboration of ideas or in reaching higher levels of understanding (Hoetker & Ahlbrand, 1969). The interactions are highly routinized and thus restricted largely to decontextualized discrete skills, rote learning, reciting of facts, and low-level cognition (Durkin, 1978-1979; Goodlad, 1984; Tharp & Gallimore, 1988). Although recitation and recitation-like teaching practices (e.g., direct instruction) are necessary minor components of teaching, conventional education overrelies on these methods and neglects the kind of teaching that provides assistance to the learner (Tharp & Gallimore, 1988).

By contrast, *instructional conversation* has been proposed as a generic term encompassing central features of a more recent, and still evolving, conception of teaching methods that attempt to go beyond recitation to challenge students and to propel them toward higher planes of knowing. Among these methods of teaching are mediated learning, interpretative discussion, guided practice, quality teaching, reciprocal teaching, and others. The commonality among these methods is the instructional conversation, that is, discourse in which teacher and students weave together spoken and written text with previous understanding and experience.

Saunders, Goldenberg, and Hamann (1991) developed a working list of important elements of the instructional conversation:

> Briefly, a good instructional conversation appears, on the surface, as an excellent discussion conducted by a teacher (or someone relatively more knowledgeable or skilled) and a group of students (or individuals relatively less knowledgeable or skilled). The discussion is interesting and engaging. It is about some idea or some concept that appears to matter to the participants. It has coherent focus which, while it might shift as the discussion evolves, remains discernible throughout. There is a high level of participation without undue domination by any one individual, particularly the teacher. Students engage in extended discussion with the teacher and among themselves, exploring ideas and thoughts in depth. At the end of an IC, students (and, ideally, the teacher) have reached a new level of understanding about whatever topics were under discussion. (p. 4)

While IC is a rare enough phenomenon in any classroom, it appears that teachers of low-income, minority children (including Native Americans)

do not often engage their students in instructional conversations, perhaps because they believe these students need drill, review, and redundancy of direct instruction even more than other students (Goldenberg, & Gallimore 1991).

The success of IC in enabling students to participate in rational discourse parallels its effectiveness in enhancing comprehension of the topics, themes, and contents under study, and this is no less true for at risk students. IC is as scarce in Native American classrooms as in any others, though the need for it may well be greater.

Cultural Patterns in the Instructional Conversation

One determinant of the patterns of discourse in the instructional conversation is the culture(s) of the participants. The IC varies in pattern in different cultures, as do other discourse forms. A pioneering effort to match IC morphology to cultural discourse patterns was made by the Kamehameha Early Education Program (KEEP), a language arts IC-based program designed for native Hawaiian children. Although Hawaiian children in ordinary schools were among the lowest scoring minorities in the nation on standardized achievement tests, children in KEEP classrooms scored close to the national norms (Gallimore, Tharp, Sloat, Klein, & Troy, 1982; Tharp & Gallimore, 1988). A project was also conducted by the KEEP team on the Navajo Indian reservation in Arizona. Research at this site indicated that although some Hawaiian IC features were of benefit to the Navajos, it was necessary to tailor many classroom practices specifically to the Navajo culture (Tharp & Gallimore, 1988; Vogt , Jordan, & Tharp, 1992). That study made some progress in the investigation of Indian discourse within the IC, and today there is a growing body of literature which, if scattered, does accumulate to a coherent set of ideas about Indian discourse, schooling, and the instructional conversation.

In this paper, our concern is with American Indian education, specifically 1) to suggest discourse elements that are characteristic in non-educational settings for American Indians and which are potentially adaptable to schools, and 2) to suggest school configurations and processes that would make more likely the occurrence of appropriate, quality IC in Indian classrooms.

Formal versus Informal Learning

What are the roots of the problems American Indians experience in the context of the school and school learning? Many researchers believe that

these problems stem from a cultural misfit between the informal teaching and learning processes of nonwestern minorities, such as the American Indians, and the formal teaching and learning of the typical classroom (Jordan, 1984; Moll & Diaz, 1987; Scribner and Cole, 1973; Stearns, 1986; Tharp, 1989; Tharp & Gallimore, 1988; Vogt, Jordan, & Tharp, 1987). Informal education occurs in the course of everyday life, where the younger members of a culture take part in adult activities according to their abilities. In informal learning settings, there are no set activities for specifically training skills; however, social processes and institutions are structured to permit acquisition of the basic skills, attitudes, values, and customs that are deemed necessary for participation in the culture (Scribner & Cole, 1973). Informal learning is often affectively tied to the person who is the "teacher," one who is likely a family member or chosen mentor and is held in high regard. Informal education thus fuses emotional and intellectual domains.

By contrast, school (formal) learning emphasizes universalistic values, criteria, and standards of performance. Content is more important than who is teaching. Language in school learning is the predominant mode by which information is conveyed and acquired, whereas in informal education, observational learning (modeling) is emphasized (Scribner & Cole, 1973). Classroom learning involves learning a skill or concept out of context—a rule or concept is verbalized which may or may not be later tied to actual events and objects in the students' real world. This contrasts with informal learning, in which the referents to the teachings are familiar and thus easier to assimilate, as for example with the telling of a tribal story or recounting an ancestral genealogy (Scribner & Cole, 1973). A second example involves mathematics. Counting in everyday life refers to actual objects, whereas mathematics in school is much more abstract, and manipulation of numbers and symbols typically involves manipulation of abstract concepts, rather than concrete referents.

Culturally Compatible Education

Recent research has focused on the processes of teaching and learning in cultures whose students have difficulty in school, with the goal of designing "culturally compatible" education (e.g., Jordan & Tharp, 1979; Tharp, 1989; Tharp & Gallimore, 1988). This body of research indicates that changing the structure of the classroom interactions and activities, so that they are more compatible with the home cultures of these children, promotes classroom learning (Deyhle, 1983; Jordan, 1985; Moll & Diaz, 1987; Stearns, 1986; Tharp, 1989; Tharp & Gallimore, 1988; Vogt et al., 1987). In essence, these researchers attempt to bridge the gap between experience with informal learning in natal cultures and the formal school

learning that dominates western classrooms. This is accomplished through innovations in the structure and content of classroom conversations (both teacher-student and student-student), so that they become two-way interactions: less teacher dominated, but including more teacher assistance, with much more relevance to the children's background experiences, both cultural and individual.

The instructional conversation varies in form across the informal learning settings of different cultures. Analysis of the research on the formal and informal learning of American Indians lends insight into possible ways in which the instructional conversations in classrooms with these children could be modified to promote learning. For our present purposes, we may examine the literature that describes features of discourse that appear to be implicated in effective ICs for Native Indians and then the literature that offers ideas for how IC likelihood may be maximized. Research indicates that successful instructional conversations are influenced by at least four basic psychocultural factors : (a) sociolinguistics; (b) cognition; (c) motivation; and (d) social organization.

Sociolinguistics

There are many differences in the courtesies and conventions of conversation across cultures. Such rules of verbal interaction can affect cultural compatibility of the instructional conversations in the classroom. For example, cultures vary in the amount of "wait time" which is allowed and expected. Wait time refers to both the amount of time teachers give students to respond to a question and to the amount of time following a student's response that a teacher waits before beginning to speak again (Rowe, 1974). Research on wait time indicates that when teacher and student come to classroom interactions with different expectations about wait time, student participation may be reduced, and teacher frustration may ensue (White & Tharp, 1988).

For American Indians, the IC appears to be enhanced by extended wait time. Winterton (1976) studied the effect of extended wait time on Pueblo Indian children's conversations with a teacher. Results indicated that extended wait time, especially that which followed students' responses, was significantly related to the length of students' responses and the amount of student-to-student interaction. Verbal participation of low-verbal students also increased, as did overall unsolicited but appropriate verbal responses (Winterton, 1976). Rhodes (1989) speculated on why extended wait time is effective with American Indians:

> The Native American student has to hear and understand the question in English, sometimes translate that into his own language, determine what the question really means and how it relates to his reality, develop an answer, sometimes translate that answer into English, and finally determine if it is appropriate to volunteer that answer out loud to the teacher [or] if the volunteering of the answer will make him less than a team member. That is, will he, by volunteering the answer, either risk embarrassing

himself with a wrong answer or risk embarrassing others in the class by giving the correct answer when they did not know it. (p. 37)

Rhodes' explanation might also help us to understand differences between American Indian and European-American children when faced with the traditional participation structure of western school. A participation structure is the setting and structure in which students are expected to participate, especially with reference to an adult (Watson-Gegeo & Boggs, 1977). Philips (1976, 1983) compared the participation structure of traditional western classrooms to a switchboard, where the teacher acts like a switchboard operator, in the sense that s/he regulates speaker change and designates who speaks to whom. Philips' studies of the Warm Springs Indians indicated that the Indian participation structure for conversations was different from this switchboard system. The Indian system did not rely so heavily on nonverbal cues (e.g., gazes, body movement, and gestures) for turn-taking or back-and-forth flow of conversations. Turn-taking by their system was self-directed: Anyone who wanted to speak did so and for as long as they wanted. Thus, when students came to school and encountered this foreign and complicated participation structure, they reacted by withdrawing from classroom activities.

A study of Choctaw Indian and non-Indian fifth and sixth graders and their interactions with non-Indian teachers further corroborated these findings (Greenbaum,1983). This study indicated that during switchboard-type conversations, Indian children, when compared to their non-Indian peers, a) spoke shorter utterances when they spoke individually; b) spoke individually less frequently, as opposed to chorally (in unison); c) interrupted their teacher more; and d) gazed at their peers more when the teacher was speaking (Greenbaum, 1983).

It is a consistent finding that American Indian students, with experience in school, become progressively more quiet, withdrawn, and nonresponsive (Greenbaum & Greenbaum, 1983). Wax and his associates (Dumont, 1972; Dumont & Wax, 1969; Wax, Wax, & Dumont, 1964) describe the development of this phenomenon. Until the third grade, American Indian children are reported to come to school interested, engaged, and oriented toward the teacher. From fourth to sixth grade, this enthusiasm changes, and children pay more attention to peers than to their teachers. Teachers describe these Indian children as quiet, sullen, and withdrawn. In the seventh and eighth grades, silence pervades the classrooms of American Indian children. There are reports that this pattern of silence and nonresponding continues through high school and college (Lujan & Dobkins, 1978; Osborn, 1967). Wax and his colleagues believe that silence and withdrawal of American Indian students reflects the importance of peer groups and a combined effort that these children make against the other culture—that is, the culture of the teacher, school, and white majority.

A study by Guilmet (1979) provides some insight into other possible reasons why American Indian children become withdrawn and do not

respond in class. Navajo and European-American mothers were shown videotaped episodes of Navajo and European-American children participating in a classroom. The mothers were told to rate the children on a number of dimensions. Differences concerning one particular episode were especially striking: the Navajo mothers, compared to the European-American mothers, judged a European-American boy who was engaged in high levels of verbal and physical activity as less desirable, competent, successful, intelligent, and competitive. The Navajo mothers believed the high verbal and physical activity were negative attributes, whereas the European-American mothers believed them to be positive. It is easy to imagine how differences in parents' attitudes toward these kinds of behaviors would lead to the differences in the behavior of children.

Classroom discourse is also patterned by the rhythm of the verbal interaction—the tempo of presentation of materials, vocal inflections, and the body movements that accompany these vocal patterns (Barnhardt, 1981; Erickson & Mohatt, 1982; Young, 1970). Erickson (1980) observed that there is a certain rhythm that is established in oral tests given in elementary school. Most often this rhythm was established by the teacher, so that the child was expected to answer on a certain beat. When the children gave the correct answer on the wrong beat, the teacher often misheard them and concluded that they did not know the answer (Erickson, 1980).

Esmailka and Barnhardt (1981) videotaped instructional conversations between three Athabaskan teachers and their elementary school students. They were particularly interested in these teachers because they made up the only multi-teacher school in Alaska where the teachers were Native Americans themselves. Additionally, all traditional measures of school success indicated that this school was succeeding. Students were performing at or above national standards on test scores; attendance was good; there were no major discipline problems; students actively participated in class; and time-on-task standards were being met (Esmailka & Barnhardt, 1981). From their analyses, the researchers concluded that the Athabaskan teachers were adjusting the tempo of their interactions to their students. Further, teachers allowed students to provide answers to questions in their own time slots. That is, children were given opportunities to set their own pace and were not penalized for calling out answers to questions that were out of synch with the teacher's own rhythm. Analysis of nonverbal rhythm indicated that students were also the pace-setters for the tempo of nonverbal movements between the students and the teacher. Often, this was established by the teacher entering into the group sometime later, after students had already begun the activity on their own:

> The students are in essence doing reading activities without the teacher and they have a tempo well established before she comes on the scene. When the teacher gets up from her desk (about six feet away from the reading table) and begins to walk over to the students, she does so in exactly the same tempo that the students are using. Her footsteps and arm movements coincide with their beat. She sits down at the table, opens her book, puts her hand toward the board and begins talking using the same

> rhythm that was established by the children. There is no attempt on the teacher's part to change the pattern already established by the students. It is a very smooth entrance into the group and there is no time or energy lost in the transition. (Esmailka & Barnhardt, 1981, p. 11)

The researchers also observed that the Athabaskan teachers spent relatively less time talking and more time listening. In fact, Esmailka and Barnhardt likened these teachers to jazz band conductors, who provide direction and information to students only when necessary, and who serve a more supportive or resource role. These teachers did not appear to feel obliged to be constantly performing. "Like the jazz conductors, they often melted right into their group" (Esmailka & Barnhardt, 1981, p. 15).

Although Esmailka and Barnhardt reported that the Athabaskan teachers spent less time talking than has been reported of European-American teachers in the research literature, their study does not tell us whether it was because they were Natives themselves that the teachers were better at tuning in to the rhythm of their students. Erickson and Mohatt (1982) compared the differences between the way an Odawa Indian teacher and a European-American teacher interacted with Indian children at a reservation elementary school. They reported that compared to her non-Indian colleague, the Odawa teacher interacted with her students at a slower tempo. In addition, events in her classroom generally took more time to unfold and to be completed. For example, the class assembled slower in the morning, and the children were given more time to finish their work. The Indian teacher also scheduled periods of free time for her students, which may have allowed for the children to establish their own paces.

Another sociolinguistic variable that may influence the IC between teachers and American Indian children is the volume at which teachers and and students speak to each other. European-American teachers sometimes reprimand Indian students for speaking in tones they consider to be too soft (Darnell, 1979). On the other hand, Indian children often consider their non-Indian teachers to be mean because they speak loudly (Key, 1975). In fact, the Cree word for white man is *moniyaw*, which can be translated as "loud-mouthed" and implies aggressiveness (Darnell, 1979).

Cultures also differ in their expectations regarding speaker- and listener-directed gaze. American Indian students may look down when a teacher speaks to them, a sign of politeness in their culture, but which might be misinterpreted by the teacher as sullen or evasive (Greenbaum, 1983; Hymes, 1971). In conversations, Indian speakers and listeners use less gaze than European Americans (Darnell, 1979; Peterson, 1975; Philips, 1983). In many Indian cultures, staring is considered impolite or aggressive (King, 1967).

Cognition

In schools everywhere, there is a strong tendency to emphasize verbal rather than visual symbolic thinking and to approach situations analytically rather than holistically. It follows that students whose cognitive tendencies

do not match those school expectations will be less academically successful (Tharp, 1989).

There is considerable evidence that American Indian children suffer such a mismatch, since by-and-large they tend to think in holistic rather than analytic terms (John-Steiner & Oesterreich, 1975; Jordan, Tharp, & Vogt, 1985; Rhodes, 1989; Tharp, 1991b; White, Tharp, Jordan, & Vogt, 1989).[2] Informal learning in the American Indian culture is acquired in a holistic context.

Joseph Suina, a Pueblo Indian, recounts a personal example:

> There was going to be a ceremony performed in our village that had not occurred in forty years, and I wanted to participate . . . . I arose early the following morning to visit my father, wanting to know what I needed to do in the ceremony . . . . My father greeted me, but sensing my hurry, my distraction, told me to relax, to sit down . . . . He spoke of the time when the ceremony had been performed last—the tribal members who had been present, who was alive, who was in office, how the hunt was that year, how the harvest had been that year . . . . "Do you remember your grandfather?' he asked me . . . . "He used to carry you on his shoulders when you were young and he sang songs for you. It's no wonder you have a good feel for songs." The time when the ceremony was last performed had been just the beginning of the Second World War, when so many young men were leaving the village, and perhaps that was what had precipitated its need. The effect my father's speech had on me was the same sense that I get when I look at mountains and boulders, a sense of eternity, a sense of connection between generations, events . . . . What was absolutely crucial was the whole picture. After about two hours of recollections, my father finally wended his way to the purpose of the dance, to some of the symbols that were involved. And after a while longer, he spoke of what I would need for that evening in terms of clothing and other paraphernalia. Finally, my father told me how I was to act and what words I was to use. When it was over and done with, I no longer felt anxious . . . . I could see myself again as just one little piece in a much larger picture. (Suina & Smolkin, 1991, p. 4)

This tendency toward holistic thought is undoubtedly influenced by the prominence of observational learning in the informal activity settings of American Indians, when children learn a task by observation or participation with adults or more capable peers (Vallo, 1988). This pattern of holism is associated with an unusual strength in visual-field aspects of cognitive functioning—a strength repeatedly found in psychometric assessments of Native Indian people (Berry, 1976; Collier, 1967; Kaulback, 1984; Lombardi, 1970).

Effective instructional conversation can accommodate differences in cognitive tendencies by providing support when cognitive strategies are not as familiar to students and by capitalizing on students' preferred ways of thinking. The instructional conversation with American Indian students is most effective when this visual/holistic tendency is taken into account. That is, even when teachers want to emphasize verbal/analytic skills, instruction can be more successful when using a visual/holistic approach. Apparently simple instructional changes can access cognitive skills, both as a part of and as an adjunct of the IC itself.

For example, during ICs, concepts can be embedded holistically in students' previous knowledge and experiences, particularly by tying concepts to the children's world outside of school. The authors' own experiences with Navajo and Zuni Pueblo children suggest that the incorporation of holistic and/or visual elements into ICs make these lessons more interesting and engaging, and ultimately produce more expanded discourse. Navajo third-grade children clearly preferred—and often demanded—to hear or read a story through to the end before starting discussion, rather than discussing it in piecemeal successive sections.

In our current research, visual aspects of the instructional conversation have been observed that effectively engage students at the Zuni Middle School on the Zuni Pueblo reservation in New Mexico. Yamauchi's field notes contain many instances. These students, children of a village filled with artists and craftspeople, enjoy drawing pictures to accompany their writing. Students drew maps of their village, which included the middle school and their homes. Teacher-led ICs assisted them when necessary to master the concepts of scale and direction. Students then used the maps to write verbal sequential directions for getting from school to home. Teachers used the maps and directions to make home visits—tying the task back to a larger context.

In school, the instructional conversation with American Indians is maximized by using visual aids, by conducting demonstrations, and by writing many words on the board. All children benefit from these strategies, but Native American students may require these forms of visual assistance to help bridge their performance in the verbal domain, by enriching the environment of the IC with static visual models of the processes being taught.

Even learning how to do conduct ICs can be accomplished better by Native American teachers using holistic/visual enrichment of verbal instruction. In a previous project (see Tharp & Gallimore, 1988), our Navajo research teacher began her training in conducting instructional conversations in our usual segmented, verbal-instructed format, which had been successful with scores of Asian, Native Hawaiian, and Caucasian teachers in Hawaii. She firmly declined this method, preferring to sit close by the experienced teacher-trainer, observing her for many weeks so that she could "see the whole thing working." When she felt ready, she assumed the instruction of the entire system virtually all at once.

Motivation

Cultures differ in motivation toward school achievement in day to day tasks *(state motivation)* and toward education in general *(trait motivation)*. Ogbu (1982, 1991) has for some time argued for a lack of trait motivation on the part of some cultural groups, among them American Indians, who are "involuntary minorities" in that they did not join the North American nation-states by choice. Although involuntary minorities might sometimes express

the importance of education, they do not really believe that education alone can change their status in a society that discriminates against them (Ogbu, 1991). This leads to a general distrust of the dominant group and of the schools they control (Ogbu, 1991). Thus, Indian students may not come to school with the same expectations about school success and failure as their non-Indian peers. We have argued elsewhere (Tharp, 1989; Tharp & Gallimore, 1988) that however accurate this may be as a description of the attitudes of children who have repeatedly failed in schools, grade after grade, it is not characteristic of Native American children when they first arrive at school, nor is it characteristic of those who do succeed through a modified, compatible schooling in which success is available to them.

On the level of state motivation, however, American Indian students may not be motivated to participate in instructional conversations at school, because they are not interested in the materials they are supposed to be talking about. Often these materials are based on the experiences of the majority culture and may not seem relevant to the children's lives. Some Indian schools have attempted to introduce more culturally relevant materials in their curriculum. For example, the Pacific Northwest Indian Reading and Language Development Program was an attempt to develop a culturally relevant reading curriculum for Grades 1-3. Teachers transcribed stories told by their Indian students and used them as reading texts. A one-year posttest revealed gains in participants' oral language production and language complexity as compared to a control group. Gains were especially dramatic in students who had been identified on pretests as non-verbal. There was also evidence for an impact in the home environment: Indian parents judged the culturally relevant books to be worthwhile and useful and reported more language-related activities at home, which were developed around the culturally relevant materials (Butterfield, 1983). We will discuss this point further below, in the section on the desirability of contextualizing school instruction in meaningful activity.

Students' state motivation depends, in part, on the amount of contingent reinforcement and punishment that are used in the classroom. Hawaiian KEEP teachers needed to establish strong affective ties with their students in addition to being able to keep order in the classroom. This involved active use of contingent reinforcement and punishment (D'Amato, 1981).

When KEEP was implemented with Navajo children, it was not appropriate for teachers to use punishment, contingent reward, or any other method to control student behavior (Jordan et al., 1985). At home, American Indian children are allowed much autonomy over their own behavior, especially with respect to learning. The deep sense of respect for childhood autonomy is pervasive in Native Indian cultures (see, e.g., Macias, 1987, on the Papago). Children expect non-interference from adults, and they expect to organize and decide about their play activities and the execution of their

duties; they are not accustomed to being controlled, reprimanded, or punished.

A native Yupik teacher was asked if she minded that many of her first-grade students were not (at least initially) paying attention to her demonstrations:

> There are some kids watching, so these are the ones that know. These will be the ones who will be [tutors, when the children are given the task]. I don't force the kids who aren't ready to do things because the other kids know how to do it. They can work with them. I can work with them one to one. Some kids have different learning styles and they can do it by themselves or with a teacher . . . . That is why I didn't force the kids to watch me. It ['s] just part of learning. It turns them off, if we force kids to learn something . . . even in real life. My mom would not force me . . . if I didn't want to. That is our culture. (Lipka, 1990, p. 23)

Vallo's (1988) examination of informal activity settings in the Pueblo Indian culture indicated that most of the reinforcement children received from adults who were teaching them was indirect. This was often in the form of adult members discussing the child's progress in front of the child, without directly addressing the child. In other cases, the child's work was shown to other adults and praised, again in front of the child, but the praise was not directed to the child (Vallo, 1988). Papago teachers try to avoid direct scolding as well. When a reprimand is necessary, "after giving many generalized warnings to the group as a whole, a child is usually called aside and, without an audience of other children to observe, given instruction on how to behave more properly" (Macias, 1987, p. 376). Such indicates that teachers might promote participation in the instructional conversation with Indian students by reinforcing desired behaviors indirectly, rather than by using direct praise. Phillips (1983) reported that for Warm Spring Indian children, teachers' use of excited verbal praise merely overstimulated students, increasing their restlessness.

Social organization

The ways that classrooms and schools organize internally has profound effects on how instructional conversations are conducted and, indeed, on whether they are conducted at all. The social organization of a traditional American classroom is primarily whole-class oriented, with a teacher who leads, instructs, and demonstrates to the whole group. Some form of individual practice follows, and learning is assessed by individual achievement. This system is ineffective for children of many cultures, who respond to this structure with a low level of attention to teacher and coursework and a high level of attention-seeking from peers (Gallimore, Boggs, & Jordan, 1974; MacDonald & Gallimore, 1971). Teachers usually attribute this behavior to low academic motivation rather than to inappropriate social structures (Tharp & Gallimore, 1976).

A study of the informal learning activity settings of Navajo and Hopi Indian children indicated that adults assign children their chores, but leave

the children to perform without adult supervision, even in difficult and complex tasks: 7- or 8-year-olds are often assigned to herd sheep alone or to care for an infant sibling. When children require assistance in fulfilling these responsibilities, they often turn to peers or siblings. Most out-of-school learning for these children takes place in small peer-oriented groups (Rhodes, 1989).

Warm Springs Indian students, unlike their European-American classmates, paid more attention to their peers than to their teacher:

> It is in [small peer groups] that Indian students become most fully involved in what they are doing, concentrating completely on their work until it is completed, talking a great deal to one another within the group, and competing, with explicit remarks to that effect, with the other groups. Non-Indian students take more time "getting organized," disagree and argue more regarding how to go about a task, rely more heavily on appointed chairs for arbitration and decision-making, and show less interest, at least explicitly, in competing with other groups from their class. (Philips, 1972, p. 379)

When small groups of these children worked with a teacher who asked them to provide an individual verbal response, Indian children used shorter utterances, spoke softly—in a tone that was often inaudible to someone just a few feet away, or often refused to speak at all (Philips, 1972). King (1967) also reported that Indian students attending a Canadian boarding school felt uncomfortable when they had to speak individually in class and were the center of attention. Children preferred to engage in small group discussions, characterized by choral speaking and discontinuous spurts. Conversations of this nature were successful until attempts to encourage individual speaking were made; these efforts produced silence and embarrassment. Leith & Slentz (1984) also report that Indian children prosper more in small-group problem-solving structures, even when there were individual assignments.

Although successful peer conversations can be developed by small peer work groups, it is also important to understand how the teacher can engage children in successful instructional conversations. The conduct of successful ICs depends heavily on appropriate social organization. Barnhardt (1982) reported on several effective Indian classrooms. She emphasized that the majority of each school day was spent in individual or small group activities. The teachers characteristically moved among the students, kneeling or squatting down on the floor for individual discussions that could be lengthy and quiet because the other students were occupied with their own individual or small group tasks. To signal that another part of the day was arriving, the teacher raised her voice, which indicated to the larger group that it was once again part of the audience (Barnhardt, 1982).

Another social organization was developed by Lipka's (1990) native Yupik teacher, Mrs. Yanez, who structured her first grade class lesson for demonstration and conversation, but in a way that maximized peer assistance among students. First Mrs. Yanez demonstrated how to tie smelts for

drying. Many of the students did not appear to be paying attention to her, and their attention, instead, was drawn to the tapeworms they were finding in the fish. Many of them were so fascinated with the worms that they engaged Mrs. Yanez in a conversation about the worms. Mrs. Yanez answered their questions and continued with her original discussion about the tying of the smelts. When the demonstration was complete, Mrs. Yanez chose a student who had been paying attention to her demonstration to tie a smelt herself. While this student was performing the task, Mrs. Yanez commented on the process. Other children attempted the tying, and Mrs. Yanez encouraged those who succeeded to help the others.

Mrs. Yanez engaged the children in instructional conversations about the fish they were learning to tie, but this discourse did not pertain to how one does the task, but rather to the larger context of the task: the fish they have studied and the different methods of preparing fish. As the children practiced tying their own fish, she talked to them individually or in small groups about the importance of this task, "Good, now you can help your grandmother" (Lipka,1990, p. 25). Once all students were able to do the task, the students and Mrs. Yanez together wrote a story about this experience.

Other aspects of social organization may also come into play for certain tribes. For example, Navajo children's cooperative work and conversation in small groups is higher when boys and girls are in separate groups. This is parallel to the gender-divided activity structure of Navajo adult life, an arrangement that is typical of hunting-gathering and pastoral societies, in which assortative mating is ritualized into more ceremonial contact periods (Jordan et al., 1985).

Activity Settings for Instructional Conversation in Native American Classrooms

The evidence reviewed above indicates that the nature of classroom activity settings influences American Indian children's participation and engagement in these activities. Native American Eskimo and Indian children seem most comfortable and more inclined to participate—both in action and discourse—in activities that feature small student-directed units. It appears likely, then, that the instructional conversation with American Indian children will be most successful when embedded within such a social context.

Based on the literature discussed above, we can propose that the classroom in which the IC is most likely to occur would include activity settings between the teacher and an individual student or between teacher and small groups of students. The social organization should allow for ad hoc ICs. The teacher might float among individual and small group activity settings or might be stationary but approachable. The teacher would offer

responsive instructional conversation as needed, while allowing students opportunities to initiate and terminate those conversations.

The pattern is similar to that described for the Odawa classroom reported by Erickson & Mohatt (1982). It is also exemplified in the activity settings reported by Macias (1987) in classrooms for Papagos, whose teachers typically worked with groups of three to six children at planned projects or in less structured activities. "However, they consciously help each child learn to accept a focus of adult attention and to become adept at conversation by working with them in one-to-one relationships while other children are involved in their own pursuits" (Macias, 1987, p. 376).

It is critical to consider the timing of verbal exchanges in the entire conversational exchange, given Indian children's styles of wholism, observational learning, and the tendency to "look, listen and think" until mastery of the whole is felt. Of course, an effective IC may well include demonstration, use of non-verbal symbolism, and other aspects of productive performance. In such an activity setting, verbal conversation might come later in the sequence of instruction, after demonstration and perhaps some initial performance has already occurred. On the other hand, when instructional goals are verbal/analytic skills, such as explanations, narration, composition, and the like, the verbal conversation might best come forward in the sequence.

Is there a best pattern of integration of conversation with observation and activity? This remains among the most crucial questions for educational reform for Native Americans. Rather than detracting from conversational opportunity, the inclusion of performance activity is likely to facilitate conversation and verbal facility (Macias, 1987). The inclusion of practical activity in lessons increases the understanding of verbal explanations, especially for students of limited English proficiency (Ovando & Collier, 1985).

Contextualization , Productive Activity, and Instructional Conversation

Thus another feature of effective activity settings for instructional conversations is joint productive activity: instructional activity that is given focus by actually producing something—a dwelling, a work of art, planted corn, a performance, a science experiment, a problem solved, or a plan made. During the process of production, groups will work most efficiently, provide other members with the most intense and apt assistance, and engage in the kind of symbolic and verbal exchanges that help learners to understand not only the task but the culture of which the task is one expression. In addition, productive activity contextualizes formal knowledge

in the immediate experience and concerns of the learners. Not only should there be adequate opportunity for cooperative work among groups of peers in the classroom, but the jointness should also include the teacher working as a participant in the activity, and the teacher here may and should be understood to include elders and experts. In classrooms of Papago teachers and children, "the actual amount of talk may be reduced during periods of activity, [but] there is great impetus from involvement of both teacher and child in these activities to communicate clearly and perform with verbal skill" (Macias, 1987,p. 373).

This description of the ideal school activity setting is congruent with the activity settings of informal learning for Native Indians, which ordinarily occur within the context of family, community, and productive activity. While decontextualization has been universally listed as a primary characteristic of the transnational culture of the school (Jordan & Tharp, 1979), this need not be so. Indeed, the re-contextualization of schooling may be discerned as a major theme of contemporary school reform movements.

As an example of contextualization of curriculum, Grubis (1991) reported on an Eskimo village school of the Point Hope region, which, though plagued with typical American school problems, has managed to contextualize much of its curriculum in the community life of its whaling and sealing village. A whaling boat was constructed in the school by students and community members and became the context for instruction in basic skills. In biology, a seal was dissected and the whale was the object of scientific study; and with knowledge provided by elders, the social and cultural dynamics of whaling informed social science in a unified K-12 curriculum strand.

Embedding abstract concepts in everyday, culturally meaningful contexts fosters pride, confidence, and a stronger cultural identity. It unifies school and community in common purpose. It simultaneously fosters the school goals of verbal and abstract knowledge and cognition.

Contextualized instruction is a crucial aspect for education of all students (Tharp, 1989). This position is anchored in theory as well as in common sense and in ethnographies of informal learning. In sociocultural theory, internalization and learning and indeed enculturation are most intensified when assisted performance occurs during productive activity, particularly when accompanied by speech and other symbols that establish both the utilities and the meanings of the new capacities. Furthermore, the nature of schooled or scientific knowledge itself consists in the interweaving of schooled concepts with the "everydayness" of experience—the interweaving of the conceptual with the practical, of the problem-relevant with the problem to be solved (Tharp & Gallimore, 1988).

How is this interweaving to be accomplished at the micro level of interaction between teacher and child? By adopting activity settings in the classroom that foster the IC, because instructional conversations are the

primary vehicles by which contextuality can be assured. As teachers listen, respond, assist, and exchange ideas, contextuality is guaranteed by bringing the mind, experience, and emotions of the child into the instructional transaction.

Notes

[1] Urban or rural, poverty and unemployment rates of American Indians are among the highest in the nation: 58% of men living on reservations are unemployed; 50% of the reservation residents live at the national poverty level; 14% of Indians living on reservations earn less than $2,500 a year (*Stuck in the horizon,* 1989).

[2] This recent trend has replaced the *cultural deficit* perspective, in which minority children are expected to be "brought up" to school expectations, with the *cultural difference* perspective, which emphasizes the strengths of the cultures involved (Rogoff & Morelli, 1989; Tharp, 1989).

[3] In holistic thought , the larger unit creates meaning for the individual pieces, whereas analytic thought involves an unfolding of the larger meaning by the analysis of the individual pieces (Tharp, 1994).

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